BRIGGS & STRATTON

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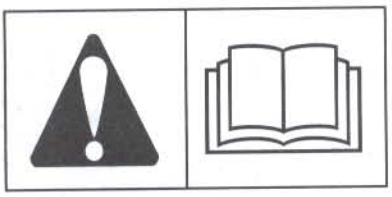
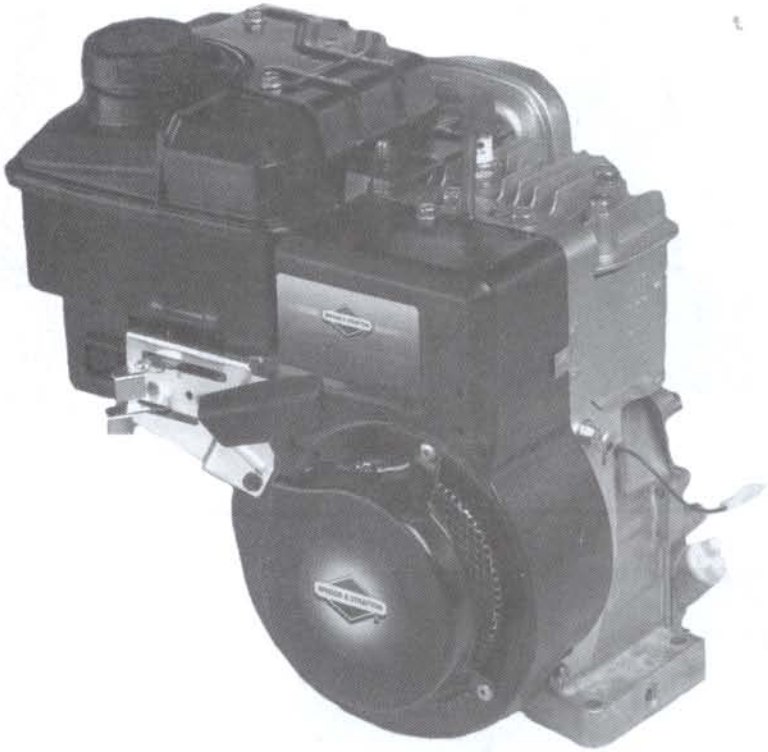


- (GB) Operating & Maintenance Instructions
- (D) Betriebsanleitung & Wartungsvorschriften
- (DK) Drifts- og vedligeholdelsesvejledning
- (E) Instrucciones de Mantenimiento & Operación
- (F) Instructions d'utilisation et de maintenance
- (GR) Οδηγίες Λειτουργίας & Συντήρησης
- (I) Istruzioni per l'uso e la manutenzione
- (N) Anvisninger for bruk og vedlikehold
- (NL) Gebruiksaanwijzing
- (P) Instruções de operação e de manutenção
- (S) Instruktionsbok
- (SF) Käyttö & Huolto-ohjeet



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FORM NO. MS-5888-7/05
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Milwaukee, Wisconsin 53201
www.briggsandstratton.com

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Fig. 1

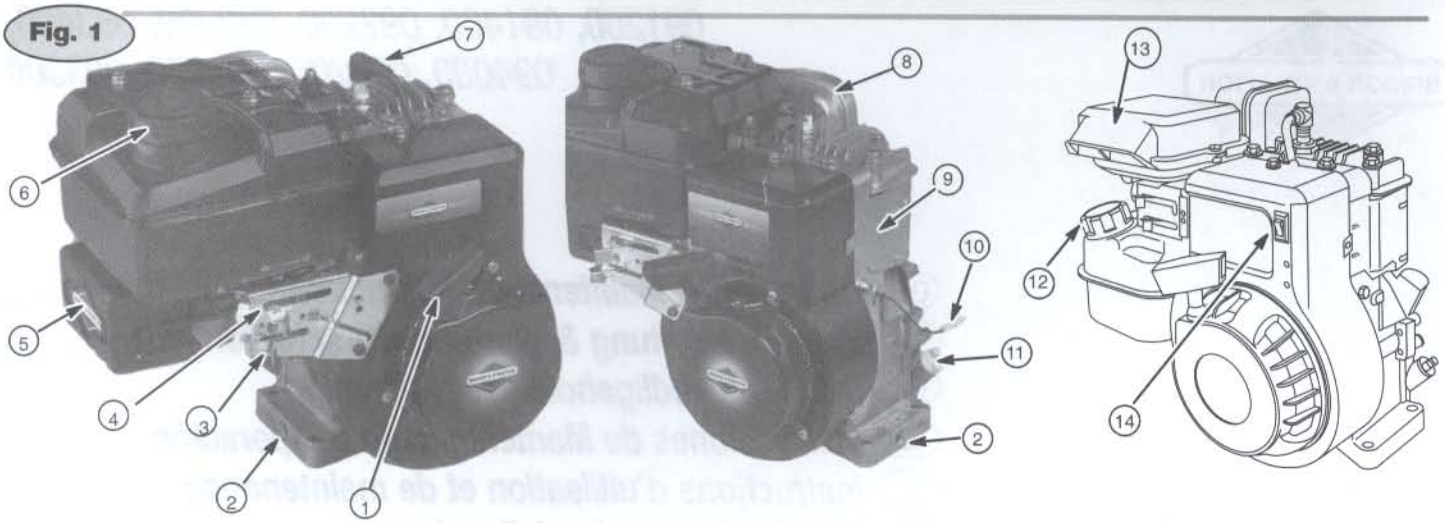


Fig. 2

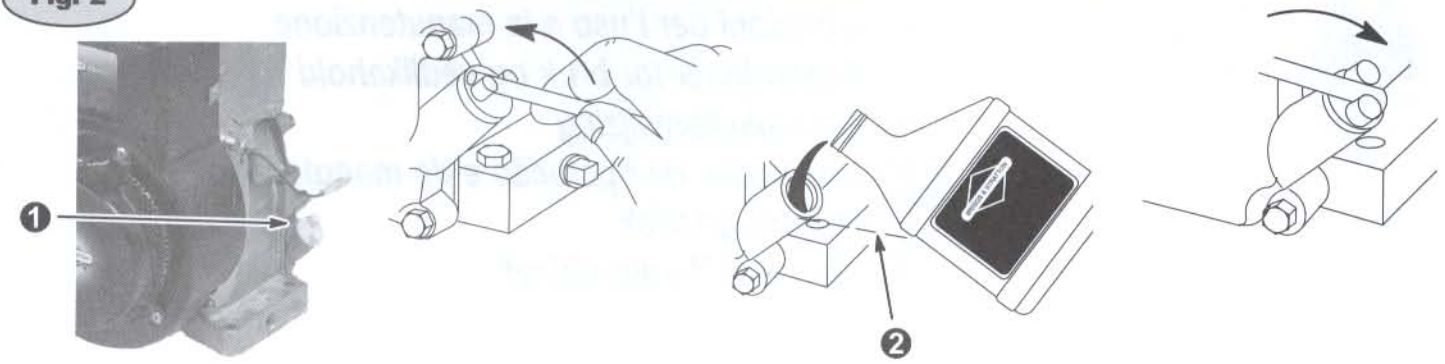


Fig. 3

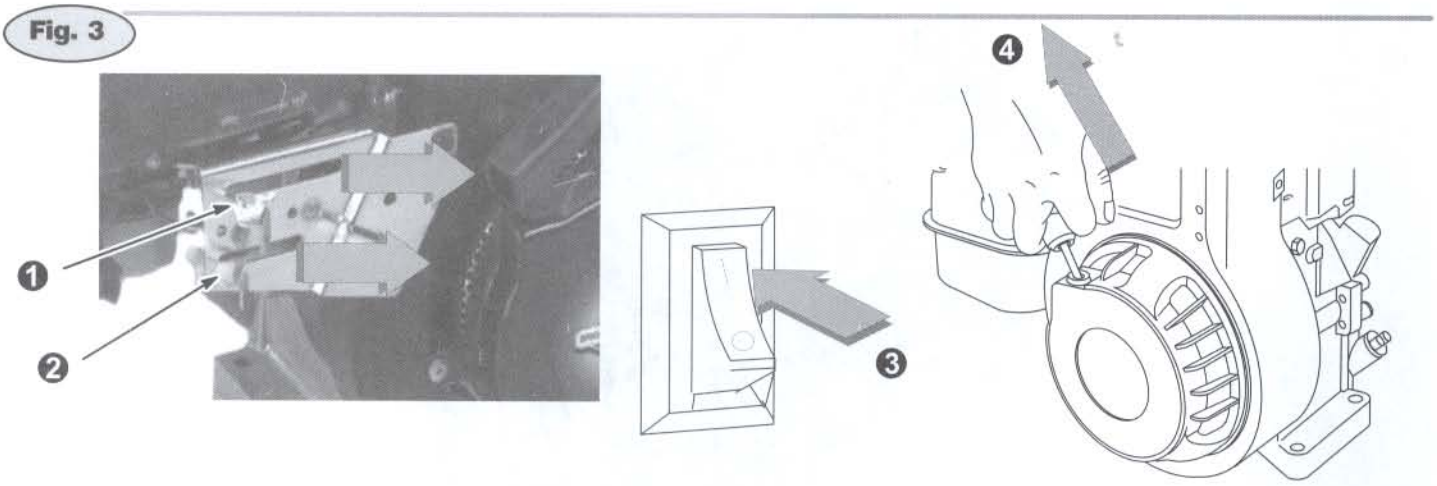


Fig. 4

Fig. 5

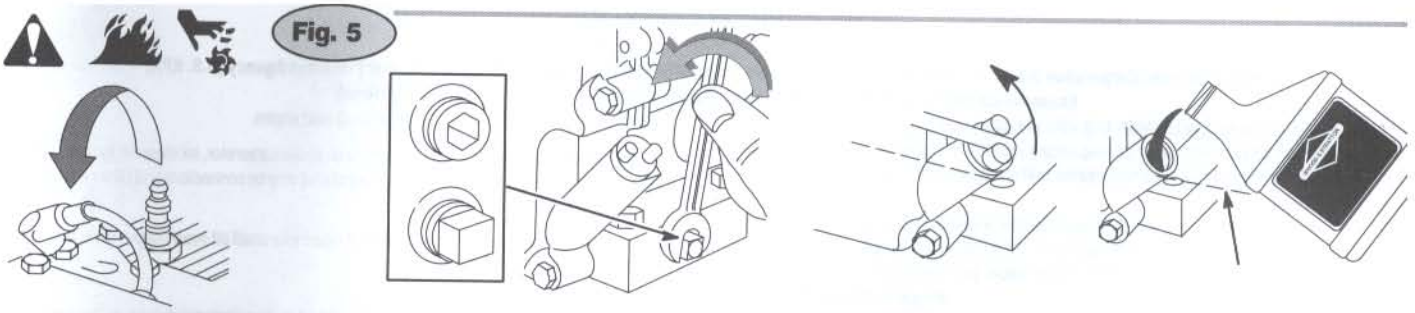


Fig. 6

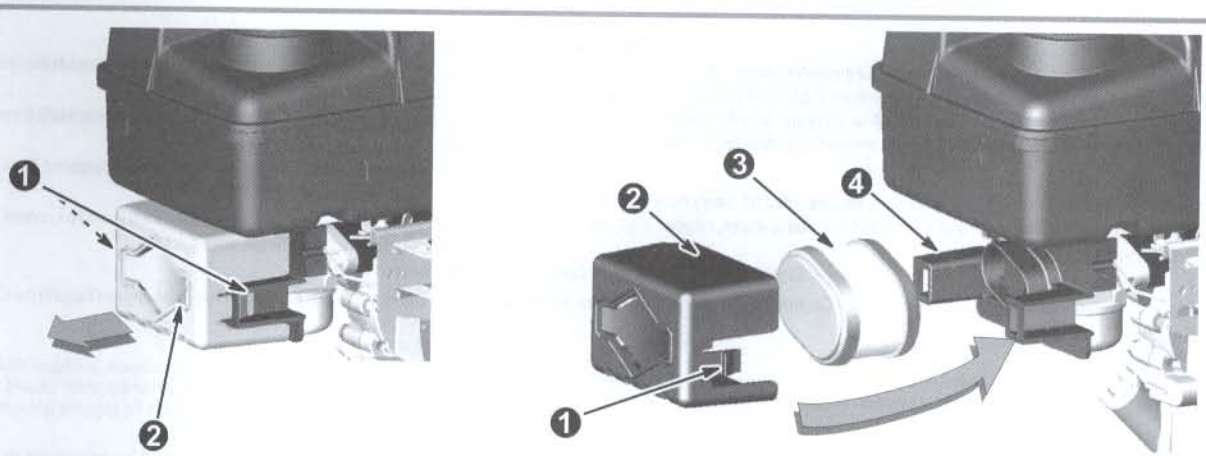


Fig. 7

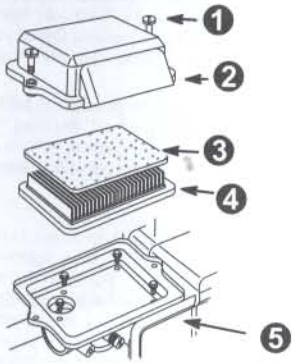


Fig. 8

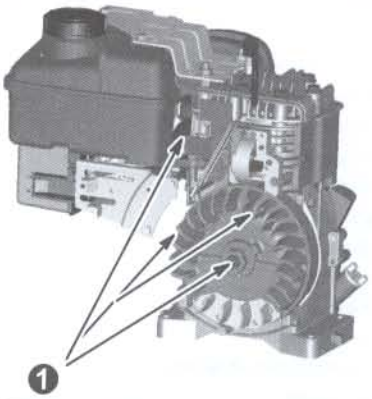


Fig. 9

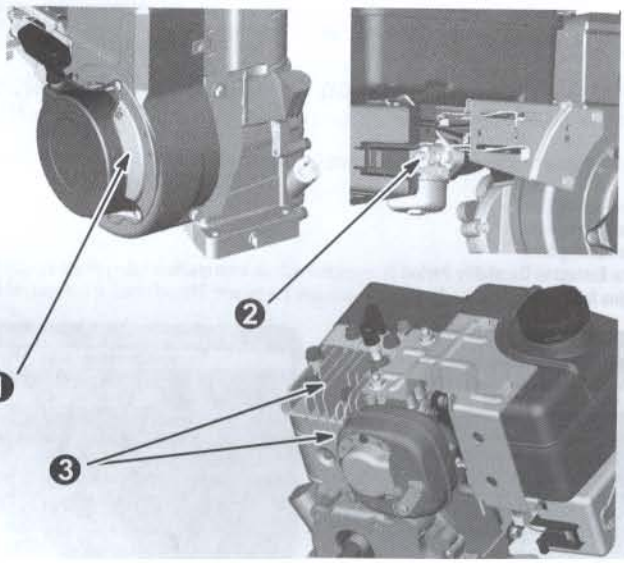
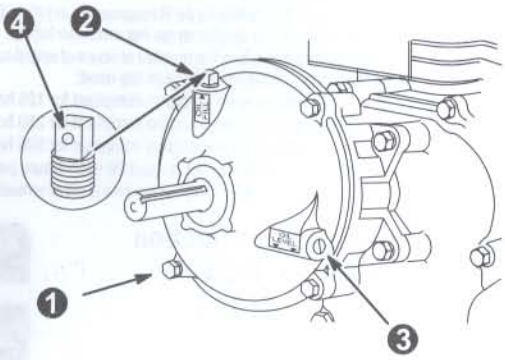


Fig. 10



IMPORTANT SAFETY INFORMATION AND INSTRUCTIONS FOR
ENGINE SELECTION
ENGINE INSTALLATION
ENGINE OPERATION

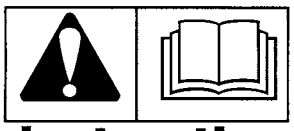
Keep these instructions for future reference.

In the USA and Canada,
our 24 hour hotline is:

1-800-233-3723

Briggs & Stratton Corporation
Milwaukee, Wisconsin 53201

www.briggsandstratton.com



Before installing and operating this engine read and observe all warnings, cautions and instructions on both sides of this sheet, on the engine, and in the operating & maintenance instructions.

NOTE: This sheet of instructions and safety information is not meant to cover all possible conditions and situations that may occur. Read entire Operating & Maintenance Instructions for this engine AND the instructions for the equipment this engine powers. Failure to follow instructions and safety information could result in serious injury or death.

The safety alert symbol (⚠) is used to identify safety information about hazards that can result in personal injury.

A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

⚠ **DANGER** indicates a hazard which, if not avoided, **will result in death or serious injury.**

⚠ **WARNING** indicates a hazard which, if not avoided, **could result in death or serious injury.**

⚠ **CAUTION** indicates a hazard which, if not avoided, **might result in minor or moderate injury.**

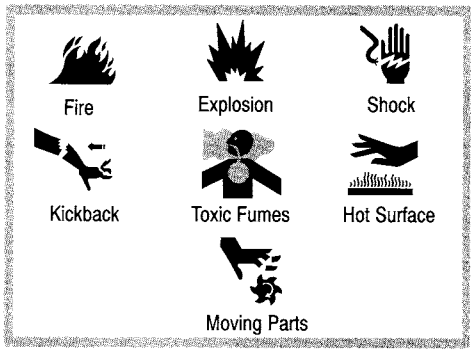
CAUTION, when used **without** the alert symbol, indicates a situation that **could result in damage to the engine.**

HAZARD SYMBOLS AND MEANINGS

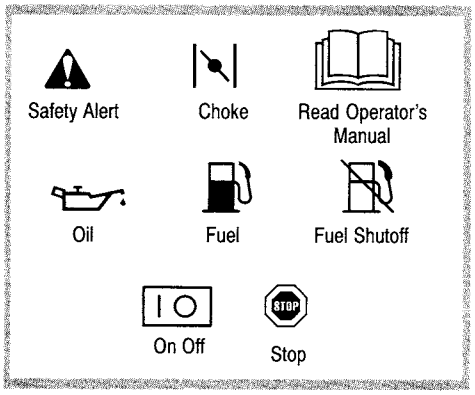
(OVER)

FORM MS-6445-01/03

Hazard Symbols and Meanings



International Symbols and Meanings



WARNING

Engines give off carbon monoxide, an odorless, colorless, poison gas.

Breathing carbon monoxide can cause nausea, fainting or death.

- Start and run engine outdoors.
- Do not start or run engine in enclosed area, even if doors or windows are open.

WARNING

Starting engine creates sparking.

Sparking can ignite nearby flammable gases.

Explosion and fire could result.

- If there is natural or LP gas leakage in area, do not start engine.
- Do not use pressurized starting fluids because vapors are flammable.

WARNING

Gasoline and its vapors are extremely flammable and explosive.

Fire or explosion can cause severe burns or death.

WHEN ADDING FUEL

- Turn engine OFF and let engine cool at least 2 minutes before removing gas cap.
- Fill fuel tank outdoors or in well-ventilated area.
- Do not overfill fuel tank. Fill tank to approximately 1/2 inch below lowest portion of fill opening to allow for fuel expansion.
- Keep gasoline away from sparks, open flames, pilot lights, heat, and other ignition sources.
- Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.

WHEN STARTING ENGINE

- Make sure spark plug, muffler, fuel cap and air cleaner are in place.
- Do not crank engine with spark plug removed.
- If fuel spills, wait until it evaporates before starting engine.
- If engine floods, set choke to OPEN/RUN position, place throttle in FAST and crank until engine starts.

WHEN OPERATING EQUIPMENT

- Do not tip engine or equipment at angle which causes gasoline to spill.
- Do not choke carburetor to stop engine.

WHEN TRANSPORTING EQUIPMENT

- Transport with fuel tank EMPTY or with fuel shut-off valve OFF.

WHEN STORING GASOLINE OR EQUIPMENT WITH FUEL IN TANK

- Store away from furnaces, stoves, water heaters or other appliances that have pilot light or other ignition source because they can ignite gasoline vapors.

WARNING

Rotating parts can contact or entangle hands, feet, hair, clothing, or accessories.

Traumatic amputation or severe laceration can result.

- Operate equipment with guards in place.
- Keep hands and feet away from rotating parts.
- Tie up long hair and remove jewelry.
- Do not wear loose-fitting clothing, dangling drawstrings or items that could become caught.

WARNING

Rapid retraction of starter cord (kickback) will pull hand and arm toward engine faster than you can let go.

Broken bones, fractures, bruises or sprains could result.

- When starting engine, pull cord slowly until resistance is felt, then pull rapidly.
- Remove all external equipment/engine loads before starting engine.
- Direct coupled equipment components such as, but not limited to, blades, impellors, pulleys, sprockets, etc., must be securely attached.

WARNING

Running engines produce heat. Engine parts, especially muffler, become extremely hot.

Severe thermal burns can occur on contact.

Combustible debris, such as leaves, grass, brush, etc. can catch fire.

- Allow muffler, engine cylinder and fins to cool before touching.
- Remove accumulated combustibles from muffler area and cylinder area.
- Install and maintain in working order a spark arrester before using equipment on forest-covered, grass-covered, brush-covered unimproved land. The state of California requires this (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal land.

WARNING

Unintentional sparking can result in fire or electric shock.

Unintentional start-up can result in entanglement, traumatic amputation, or laceration.

BEFORE PERFORMING ADJUSTMENTS OR REPAIRS

- Disconnect spark plug wire and keep it away from spark plug.
- Disconnect battery at negative terminal (only engines with electric start).

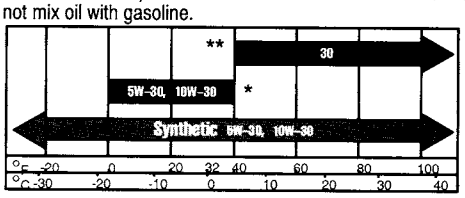
WHEN TESTING FOR SPARK

- Use approved spark plug tester.
- Do not check for spark with spark plug removed.

OIL RECOMMENDATIONS

CAUTION:
Engine shipped from Briggs & Stratton without oil. Before starting engine, fill with oil. Do not over-fill.

Use a high quality detergent oil classified "For Service SG, SH, SJ, SL" or higher such as Briggs & Stratton 30, Part Number 100005. Use no special additives with recommended oils. Do not mix oil with gasoline.



Choose the SAE viscosity grade of oil from this chart that matches the starting temperature anticipated before the next oil change.

* Air cooled engines run hotter than automotive engines. The use of non-synthetic multi-viscosity oils (5W-30, 10W-30, etc.) in temperatures above 40° F (4° C) will result in higher than normal oil consumption. When using a multi-viscosity oil, check oil level more frequently.

** Use of SAE 30 oil below 40° F (4° C) will result in hard starting and possible engine damage due to inadequate lubrication.

Note: Synthetic oil meeting ILSAC GF-2, API certification mark and API service symbol (shown at left) with "SJ/CF ENERGY CONSERVING" or higher, is an acceptable oil at all temperatures. **Use of synthetic oil does not alter required oil change intervals.**

Fig. 2 ADD OIL

(Oil capacity is about 20 oz. or 0.6 liter.)

1. Place engine level and clean around oil fill. ❶
2. Remove oil filler plug.
3. Oil should be full to overflowing. ❷

FUEL RECOMMENDATIONS

Use clean, fresh, lead-free, regular gasoline with a minimum of 85 octane. Leaded gasoline may be used if it is commercially available and if unleaded is unavailable. Purchase fuel in quantity that can be used within 30 days. See **Storage** instructions.

In U.S.A. leaded gasoline may not be used. Some fuels, called oxygenated or reformulated gasolines, are gasolines blended with alcohols or ethers. Excessive amounts of these blends can damage the fuel system or cause performance problems. If any undesirable operating symptoms occur, use gasoline with a lower percentage of alcohol or ether.

This engine is certified to operate on gasoline. Exhaust Emission Control System: EM (Engine Modifications).

Do not use gasoline which contains Methanol. Do not mix oil with gasoline.

For engine protection, we recommend using Briggs & Stratton Fuel Stabilizer available from an Authorized Briggs & Stratton Service Dealer.

Check fuel level

WARNING

Before refueling, allow engine to cool 2 minutes.

Clean around fuel fill before removing cap to refuel. Fill tank to approximately 1/2 inch below lowest portion of fill opening to allow for fuel expansion. Be careful not to overfill.

STARTING / STOPPING

WARNING

BEFORE STARTING

- Start, store, and fuel engine in a level position.
- Add fuel and re-install fuel cap.
- Check oil level.

Fig. 3 STARTING ENGINE

- Move throttle ❶ to FAST. Operate engine with throttle in FAST.
- Move choke ❷ control lever to CHOKE.
- Move stop switch to ON (if equipped).❸
- When starting engine, pull cord slowly until resistance is felt, then pull rapidly. ❹
- Allow engine to warm up.
  Adjust Choke: Slowly adjust toward RUN position. Wait until engine runs smoothly before each choke adjustment.

Fig. 4 STOPPING

WARNING

Do not stop engine by moving choke control to CHOKE. Backfire, fire or engine damage could occur.

- Move throttle control to IDLE or SLOW position ❶, if possible. Then move stop control STOP or OFF position, if equipped ❷.

MAINTENANCE

WARNING

To prevent accidental starting, remove spark plug wire ❶ and ground it before servicing.

We recommend that you see an authorized Briggs & Stratton Dealer for all maintenance and service. Use only Briggs & Stratton parts.

WARNING Do not strike the flywheel with hammer or hard object. If done, the flywheel may shatter during operation.
Do not tamper with governor spring, links or other parts to increase engine speed.

Follow the hourly or calendar intervals, whichever occur first. More frequent service is required when operating in adverse conditions noted below.

First 5 Hours

- Change oil

Every 5 hours or daily

- Check oil level
- Clean finger guard on rewind starter
- Clean around muffler

Every 25 hours or every season

- Change oil if operating under heavy load or high ambient temperature
- Service air cleaner pre-cleaner, if equipped*
- Service air cleaner cartridge, if no pre-cleaner*

Every 50 hours or every season

- Change oil
- Inspect spark arrester, if equipped

Every 100 hours or every season

- Service air cleaner cartridge, if equipped with pre-cleaner*
- Clean air cooling system*
- Replace spark plug**

* *Clean more often under dusty conditions,or when airborne debris is present or after prolonged operation cutting tall, dry grass.*

** *In some areas, local law requires using a resistor spark plug to suppress ignition signals. If this engine was originally equipped with resistor spark plug, use same type of spark plug for replacement.*

CAUTION: Used oil is a hazardous waste product. Dispose of used oil properly. Do not discard with household waste. Check with your local authorities, service center, or dealer for safe disposal/recycling facilities.

Fig. 5 CHANGING ENGINE OIL

WARNING

Change oil after first 5 hours of operation. Change oil while engine is warm. Refill with new oil of recommended SAE viscosity grade.

1. Place engine level.
2. Disconnect spark plug wire and keep it away from spark plug.
3. Remove drain plug ❶ and drain oil into appropriate receptacle.
4. Reinstall oil drain plug. remove oil fill cap. ❷
5. Add new oil by filling to point of overflowing. ❸
6. Replace oil fill cap.

AIR CLEANER SYSTEMS

All engines have an air cleaner cartridge. The cartridge is either flat or oval (see illustrations). In addition, some engines have a pre-cleaner.

CAUTION:
Do not use pressurized air or solvents to clean cartridge. Pressurized air can damage cartridge; solvents will dissolve cartridge.

OVAL AIR CLEANER Fig. 6

1. Push in the tabs ❶ located on the sides of the air cleaner cover, while pulling cover ❷ off.
2. Remove cartridge ❸ carefully to prevent debris from entering carburetor.
3. Re-install new air cleaner assembly in base. ❹
4. Reassemble cover by snapping tabs back into place.

SQUARE AIR CLEANER Fig. 7

1. Loosen screws ❶ and remove cover. ❷
2. Remove pre-cleaner ❸ (if equipped) and cartridge ❹ carefully to prevent debris from entering carburetor.
3. Reinstall clean (or new) air cleaner assembly in base. ❺
4. To service pre-cleaner (if equipped), separate it from cartridge, and wash in liquid detergent and water. Air dry thoroughly. Do not oil. Reinstall dry pre-cleaner on clean cartridge.
5. Replace cover and tighten screws.

Fig. 8 AIR COOLING SYSTEM

It is recommended to clean the air cooling system with blower housing removed every 100 hours. Clean areas shown. ❶

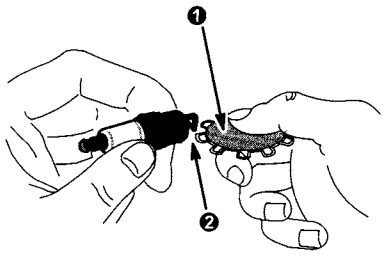
MUFFLER

WARNING

Replacement parts for the muffler must be the same and installed in the same position as the original parts, otherwise fire can occur.

If muffler is equipped with spark arrester screen, remove screen for inspection. Replace screen if damaged or plugged with debris.

SPARK PLUG



Check the spark plug every season. Replace the spark plug if upon inspection the electrodes are burned or worn. Ensure the spark plug is clean. Check the gap with a feeler gage ❶ and reset to .76 mm or 0.30 in. ❷ if necessary.

COMBUSTION DEPOSITS

We recommend that after every 100-300 hours you have an Authorized Briggs & Stratton Service Dealer remove combustion deposits from the cylinder, cylinder head, top of piston, and around valves.

FUEL SYSTEM

WARNING

Replacement parts for fuel system (caps, hoses, tanks, filters, etc.) must be the same as the original parts otherwise fire can occur.

Fig. 9 CLEANING DEBRIS

Daily or before every use, clean accumulated debris from engine. ❶ Keep linkage, springs and controls clean. ❷ Keep area around and behind the muffler free of any combustible debris. ❸

CAUTION: Do not use water to clean engine parts. Water could contaminate fuel system. Use a brush or dry cloth.

WARNING

Engine parts should be kept clean to reduce the risk of overheating and ignition of accumulated debris.

Fig. 10 GEAR REDUCTION OIL

Changing Oil in Gear Reduction, if equipped

Change oil in gear reduction after every 100 hours of operation.

1. To drain oil, loosen 4 gear case cover screws ❶ and drain oil into appropriate receptacle.
2. After draining, torque 4 screws to 85 in-lbs.
3. To refill, pour SAE 30 oil into oil fill hole ❷ until it runs out level check hole. ❸
4. Replace both oil plugs. ❹

Note: Oil filler plug has a vent hole and must be installed on top of gear case cover.

SERVICE

See an Authorized Briggs & Stratton Service Dealer. Each one carries a stock of Genuine Briggs & Stratton Parts and is equipped with special service tools. Trained mechanics assure expert repair service on all Briggs & Stratton engines. Only dealers advertising as "Authorized Briggs & Stratton" are required to meet Briggs & Stratton standards.

When you purchase equipment powered by a Briggs & Stratton engine, you are assured of highly skilled, reliable service at more than 30,000 Authorized Service Dealers worldwide, including more than 6,000 Master Service Technicians. Look for these signs wherever Briggs & Stratton service is offered.

You find the nearest Authorized Service Dealer in our dealer locator map at www.briggsandstratton.com, or by calling 1-800-233-3723, or as listed in the 'Yellow Pages™' directory under "Engines, Gasoline" or "Gasoline Engines," or "Lawn Mowers" or similar category.

Note: Walking fingers logo and "Yellow Pages" are registered trademarks in various jurisdictions.

An illustrated shop manual includes "Theories of Operation," common specifications and detailed information covering adjustment, tune-up and repair of Briggs & Stratton L-head, single cylinder, 4 cycle engines. Order P/N 270962 from an Authorized Briggs & Stratton Service Dealer or you can order at www.briggsandstratton.com.

Insist on Genuine Briggs & Stratton replacement parts with our logo on the box and/or part. Non-original parts may not perform as well and may void your warranty.

Partial List of Genuine Briggs & Stratton Parts

	Briggs & Stratton (or equivalent)
Part	**Part No.**
Oval air cleaner cartridge	790166
Flat air cleaner cartridge	491588 -or- 5043
Flat air cleaner pre-cleaner	491435
Oil	100005 -or- 100028
Fuel Filter	298090 -or- 5018
Gas additive	5041
Resistor spark plug	802592
Standard spark plug	492167
Spark plug wrench	89838 -or- 5023
Spark tester	19368
Oil pump kit	5056
(uses standard electric drill to remove oil from engine quickly)	

STORAGE

Engines stored over 30 days need special attention.

To prevent gum from forming in fuel system or on essential carburetor parts:

a) if fuel tank contains oxygenated or reformulated gasoline (gasoline blended with an alcohol or an ether), run engine until it stops from lack of fuel, **or** b) if fuel tank contains gasoline, either run engine until it stops from lack of fuel, or add a gasoline stabilizer to the gas in the tank.

Note: If stabilizer is used, run the engine for several minutes to circulate the additive through the carburetor. Then engine and fuel can be stored.

1. Change oil.
2. Remove spark plug and pour about 15 ml (1/2 oz.) of engine oil into cylinder. Replace spark plug and crank slowly to distribute oil.
3. Clean engine of debris.
4. Store in a clean and dry area.

We recommend use of Briggs & Stratton Fuel Stabilizer available from an Authorized Briggs & Stratton Service Dealer.

⚠ WARNING

DO NOT store near a stove, furnace or water heater which uses a pilot light or any device that can create a spark.

BRIGGS & STRATTON ENGINE OWNER WARRANTY POLICY

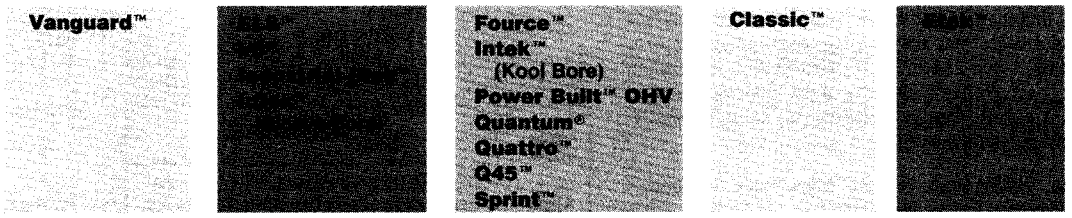
Effective July 1, 2004 replaces all undated Warranties and all Warranties dated before July 1, 2004

LIMITED WARRANTY

Briggs & Stratton Corporation will repair or replace, free of charge, any part(s) of the engine that is defective in material or workmanship or both. Transportation charges on parts submitted for repair or replacement under this warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions stated below. For warranty service, find the nearest Authorized Service Dealer in our dealer locator map at www.briggsandstratton.com, or by calling 1-800-233-3723, or as listed in the 'Yellow Pages™'.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM PURCHASE, OR TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some states or countries do not allow limitations on how long an implied warranty lasts, and some states or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state and country to country.

OUR PRODUCT



WARRANTY PERIOD*

Consumer Use	2 years		2 years	1 year
Commercial Use			90 days	90 days

* **Note the following special warranty periods: 2 years** for Classic™ engines in the European Union and Eastern European countries, for all consumer products in the European Union, and for emission control systems on engines certified by EPA and CARB. **5 years** for consumer use, 90 days for commercial use of Touch-N-Mow® starter on Quantum® and Intek™ engines. **Engines used in competitive racing or on commercial or rental tracks are not warrantied.**

The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the period of time stated in the table above. "Consumer use" means personal residential household use by a retail consumer. "Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once an engine has experienced commercial use, it shall thereafter be considered as a commercial use engine for purposes of this warranty.

NO WARRANTY REGISTRATION IS NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON PRODUCTS. SAVE YOUR PROOF OF PURCHASE RECEIPT. IF YOU DO NOT PROVIDE PROOF OF THE INITIAL PURCHASE DATE AT THE TIME WARRANTY SERVICE IS REQUESTED, THE MANUFACTURING DATE OF THE PRODUCT WILL BE USED TO DETERMINE THE WARRANTY PERIOD.

ABOUT YOUR ENGINE WARRANTY

Briggs & Stratton welcomes warranty repair and apologizes to you for being inconvenienced. Any Authorized Service Dealer may perform warranty repairs. Most warranty repairs are handled routinely, but sometimes requests for warranty service may not be appropriate. For example, warranty would not apply if engine damage occurred because of misuse, lack of routine maintenance, shipping, handling, warehousing or improper installation. Similarly, warranty is void if the serial number of the engine has been removed or the engine has been altered or modified.

If a customer differs with the decision of the Service Dealer, an investigation will be made to determine whether the warranty applies. Ask the Service Dealer to submit all supporting facts to his Distributor or the Factory for review. If the Distributor or the Factory decides that the claim is justified, the customer will be fully reimbursed for those items that are defective. To avoid misunderstanding which might occur between the customer and the Dealer, listed below are some of the causes of engine failure that the warranty does not cover.

Normal wear:

Engines, like all mechanical devices, need periodic parts service and replacement to perform well. Warranty will not cover repair when normal use has exhausted the life of a part or an engine.

Improper maintenance:

The life of an engine depends upon the conditions under which it operates, and the care it receives. Some applications, such as tillers, pumps and rotary mowers, are very often used in dusty or dirty conditions, which can cause what appears to be premature wear. Such wear, when caused by dirt, dust, spark plug cleaning grit, or other abrasive material that has entered the engine because of improper maintenance, is not covered by warranty.

This warranty covers engine related defective material and/or workmanship only, and not replacement or refund of the equipment to which the engine may be mounted. Nor does the warranty extend to repairs required because of:

1. PROBLEMS CAUSED BY PARTS THAT ARE NOT ORIGINAL BRIGGS & STRATTON PARTS.
2. Equipment controls or installations that prevent starting, cause unsatisfactory engine performance, or shorten engine life. (Contact equipment manufacturer.)
3. Leaking carburetors, clogged fuel pipes, sticking valves, or other damage, caused by using contaminated or stale fuel. (Use clean, fresh, lead-free gasoline and Briggs & Stratton Fuel Stabilizer, Part No. 5041.)
4. Parts which are scored or broken because an engine was operated with insufficient or contaminated lubricating oil, or an incorrect grade of lubricating oil (check oil level daily or after every 8 hours of operation. Refill when necessary and change at recommended intervals.) OIL GARD® may not shut down running engine. Engine damage may occur if oil level is not properly maintained. Read Operating & Maintenance Instructions.
5. Repair or adjustment of associated parts or assemblies such as clutches, transmissions, remote controls, etc., which are not manufactured by Briggs & Stratton.
6. Damage or wear to parts caused by dirt, which entered the engine because of improper air cleaner maintenance, re-assembly, or use of a non-original air cleaner element or cartridge. (At recommended intervals, clean and re-oil the Oil-Foam element or the foam pre-cleaner, and replace the cartridge.) Read Operating & Maintenance Instructions.
7. Parts damaged by over-speeding, or overheating caused by grass, debris, or dirt, which plugs or clogs the cooling fins, or flywheel area, or damage caused by operating the engine in a confined area without sufficient ventilation. (Clean fins on the cylinder, cylinder head and flywheel at recommended intervals.) Read Operating & Maintenance Instructions.
8. Engine or equipment parts broken by excessive vibration caused by a loose engine mounting, loose cutter blades, unbalanced blades or loose or unbalanced impellers, improper attachment of equipment to engine crankshaft, over-speeding or other abuse in operation.
9. A bent or broken crankshaft, caused by striking a solid object with the cutter blade of a rotary lawn mower, or excessive v-belt tightness.
10. Routine tune-up or adjustment of the engine.
11. Engine or engine component failure, i.e., combustion chamber, valves, valve seats, valve guides, or burned starter motor windings, caused by the use of alternate fuels such as, liquified petroleum, natural gas, altered gasolines, etc.

Warranty is available only through service dealers which have been authorized by Briggs & Stratton Corporation. your nearest Authorized Service Dealer is listed in the "Yellow Pages™" of your telephone directory under "Engines, Gasoline" or "Gasoline Engines," "Lawn Mowers," or similar category.

Briggs & Stratton Engines Are Made Under One Or More Of The Following Patents: Design D-247,177 (Other Patents Pending)

6,691,683	6,520,141	6,325,036	6,145,487	6,012,420	5,803,035	5,548,955	5,243,878	5,138,996	4,875,448	D 476,629
6,647,942	6,495,267	6,311,663	6,142,257	5,992,367	5,765,713	5,546,901	5,235,943	5,086,890	4,819,593	D 457,891
6,622,683	6,494,175	6,284,123	6,135,426	5,904,124	5,732,555	5,445,014	5,234,038	5,070,829	4,720,638	D 368,187
6,615,787	6,472,790	6,263,852	6,116,212	5,894,715	5,645,025	5,503,125	5,228,487	5,058,544	4,719,682	D 375,963
6,617,725	6,460,502	6,260,529	6,105,548	5,887,678	5,642,701	5,501,203	5,197,426	5,040,644	4,633,556	D 309,457
6,603,227	6,456,515	6,242,828	6,347,614	5,852,951	5,628352	5,497,679	5,197,425	5,009,208	4,630,498	D 372,871
6,595,897	6,382,166	6,239,709	6,082,323	5,843,345	5,619,845	5,320,795	5,197,422	4,996,956	4,522,080	D 361,771
6,595,176	6,369,532	6,237,555	6,077,063	5,823,153	5,606,948	5,301,643	5,191,864	4,977,879	4,520,288	D 356,951
6,584,964	6,356,003	6,230,678	6,064,027	5,819,513	5,606,851	5,271,363	5,188,069	4,977,877	4,512,499	D 309,457
6,557,833	6,349,688	6,213,083	6,040,767	5,813,384	5,605,130	5,269,713	5,186,142	4,971,219	4,453,507	D 308,872
6,542,074	6,347,614	6,202,616	6,014,808	5,809,958	5,497,679	5,265,700	5,150,674	4,895,119	4,430,984	D 308,871

(This page applicable in the U.S.A. and Canada only.)

Briggs & Stratton Corporation (B&S), the California Air Resources Board (CARB) and the United States Environmental Protection Agency (U.S. EPA)
Emission Control System Warranty Statement (Owner's Defect Warranty Rights and Obligations)

The California Air Resources Board (CARB), U.S. EPA and B&S are pleased to explain the Emission Control System Warranty on your small off-road engine (SORE). In California, new small off-road engines model year 2006 and later must be designed, built and equipped to meet the State's stringent anti-smog standards.

Elsewhere in the United States, new non-road, spark-ignition engines certified for model year 1997 and later must meet similar standards set forth by the U.S. EPA. B&S must warrant the emission control system on your engine for the periods of time listed below, provided there has been no abuse, neglect or improper maintenance of your small off-road engine.

Your emission control system includes parts such as the carburetor, air cleaner, ignition system, fuel line, muffler and catalytic converter. Also included may be connectors and other emission related assemblies.

Where a warrantable condition exists, B&S will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

Briggs & Stratton Emission Control Defects Warranty Coverage

Small off-road engines are warranted relative to emission control parts defects for a period of two years, subject to provisions set forth below. If any covered part on your engine is defective, the part will be repaired or replaced by B&S.

Owner's Warranty Responsibilities

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your Operating and Maintenance Instructions. B&S recommends that you retain all your receipts covering maintenance on your small off-road engine, but B&S cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine owner, you should however be aware that B&S may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine to an Authorized B&S Service Dealer as soon as a problem exists.

The undisputed warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact a B&S Service Representative at 1-414-259-5262.

The emission warranty is a defects warranty. Defects are judged on normal engine performance. The warranty is not related to an in-use emission test.

Briggs & Stratton Emission Control Defects Warranty Provisions

The following are specific provisions relative to your Emission Control Defects Warranty Coverage. It is in addition to the B&S engine warranty for non-regulated engines found in the Operating and Maintenance Instructions.

1. Warranted Parts

   Coverage under this warranty extends only to the parts listed below (the emission control systems parts) to the extent these parts were present on the engine purchased.

   a. Fuel Metering System
      - Cold start enrichment system
      - Carburetor and internal parts
      - Fuel Pump
      - Fuel line, fuel line fittings, clamps

   b. Air Induction System
      - Air cleaner
      - Intake manifold

   c. Ignition System
      - Spark plug(s)
      - Magneto ignition system

   d. Catalyst System
      - Catalytic converter
      - Exhaust manifold
      - Air injection system, Pulse valve

   e. Miscellaneous Items
      - Vacuum, temperature, position, time sensitive valves and switches
      - Connectors and assemblies

2. Length of Coverage

   B&S warrants to the initial owner and each subsequent purchaser that the Warranted Parts shall be free from defects in materials and workmanship which caused the failure of the Warranted Parts for a period of two years from the date the engine is delivered to a retail purchaser.

3. No Charge

   Repair or replacement of any Warranted Part will be performed at no charge to the owner, including diagnostic labor which leads to the determination that a Warranted Part is defective, if the diagnostic work is performed at an Authorized B&S Service Dealer. For emissions warranty service contact your nearest Authorized B&S Service Dealer as listed in the "Yellow Pages" under "Engines, Gasoline," "Gasoline Engines," "Lawn Mowers," or similar category.

4. Claims and Coverage Exclusions

   Warranty claims shall be filed in accordance with the provisions of the B&S Engine Warranty Policy. Warranty coverage shall be excluded for failures of Warranted Parts which are not original B&S parts or because of abuse, neglect or improper maintenance as set forth in the B&S Engine Warranty Policy. B&S is not liable to cover failures of Warranted Parts caused by the use of add-on, non-original, or modified parts.

5. Maintenance

   Any Warranted Part which is not scheduled for replacement as required maintenance or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" shall be warranted as to defects for the warranty period. Any Warranted Part which is scheduled for replacement as required maintenance shall be warranted as to defects only for the period of time up to the first scheduled replacement for that part. Any replacement part that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. The owner is responsible for the performance of all required maintenance, as defined in the B&S Operating and Maintenance Instructions.

6. Consequential Coverage

   Coverage hereunder shall extend to the failure of any engine components caused by the failure of any Warranted Part still under warranty.

Look For Relevant Emission Durability Period and Air Index Information On Your Engine Emission Label

Engines that are certified to meet the California Air Resources Board (CARB) Tier 2 Emission Standards must display information regarding the Emissions Durability Period and the Air Index. Briggs & Stratton makes this information available to the consumer on our emission labels.

The **Emission Durability Period** describes the number of hours of actual running time for which the engine is certified to be emission compliant, assuming proper maintenance in accordance with the Operating & Maintenance Instructions. The following categories are used:

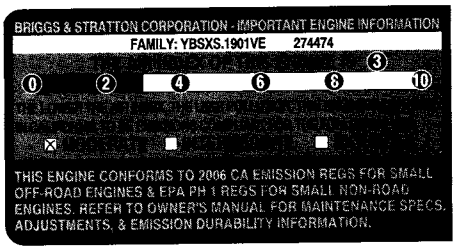
Moderate: Engine is certified to be emission compliant for 125 hours of actual engine running time.
Intermediate: Engine is certified to be emission compliant for 250 hours of actual engine running time.
Extended: Engine is certified to be emission compliant for 500 hours of actual engine running time.

For example, a typical walk-behind lawn mower is used 20 to 25 hours per year. Therefore, the **Emission Durability Period** of an engine with an **intermediate** rating would equate to 10 to 12 years.

The **Air Index** is a calculated number describing the relative level of emission for a specific engine family. The lower the **Air Index**, the cleaner the engine. This information is displayed in graphical form on the emission label.

This is a generic representation of the emission label typically found on a certified engine.

IMPORTANT ENGINE INFORMATION
BRIGGS & STRATTON CORPORATION
FAMILY YBSXS.1461HH 274459
THIS ENGINE CONFORMS TO 2000-2001 CALIFORNIA EMISSION REGULATIONS FOR SMALL OFFROAD ENGINES AND EPA PHASE 1 REGULATIONS FOR SMALL NON-ROAD ENGINES. REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS, AND ADJUSTMENTS.


BRIGGS & STRATTON CORPORATION - IMPORTANT ENGINE INFORMATION
FAMILY: YBSXS.1901VE 274474
0 2 4 6 8 10
THIS ENGINE CONFORMS TO 2006 CA EMISSION REGS FOR SMALL OFF-ROAD ENGINES & EPA PH 1 REGS FOR SMALL NON-ROAD ENGINES. REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECS, ADJUSTMENTS, & EMISSION DURABILITY INFORMATION.

IMPORTANT SAFETY INFORMATION AND INSTRUCTIONS FOR
ENGINE SELECTION
ENGINE INSTALLATION
ENGINE OPERATION

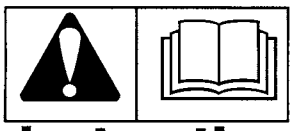
Keep these instructions for future reference.

In the USA and Canada,
our 24 hour hotline is:

1-800-233-3723

Briggs & Stratton Corporation
Milwaukee, Wisconsin 53201

www.briggsandstratton.com



Before installing and operating this engine read and observe all warnings, cautions and instructions on both sides of this sheet, on the engine, and in the operating & maintenance instructions.

NOTE: This sheet of instructions and safety information is not meant to cover all possible conditions and situations that may occur. Read entire Operating & Maintenance Instructions for this engine AND the instructions for the equipment this engine powers. Failure to follow instructions and safety information could result in serious injury or death.

The safety alert symbol (⚠) is used to identify safety information about hazards that can result in personal injury.

A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

⚠ **DANGER** indicates a hazard which, if not avoided, **will result in death or serious injury.**

⚠ **WARNING** indicates a hazard which, if not avoided, **could result in death or serious injury.**

⚠ **CAUTION** indicates a hazard which, if not avoided, **might result in minor or moderate injury.**

CAUTION, when used **without** the alert symbol, indicates a situation that **could result in damage to the engine.**

HAZARD SYMBOLS AND MEANINGS

(OVER)

FORM MS-6445-01/03

ENGINE SELECTION

WARNING

Failure to select the correct engine could result in fire or explosion.

- Some engines are unique and designed for specific applications or types of equipment. If this engine will be used to build new equipment, contact Briggs & Stratton to ensure that the engine is appropriate for the intended use.

  Note: For all Go-karts use only a model 136200 series engine, which offers improved safety and performance.
- Replacement engines should be the same model as the original engine, or be the Briggs & Stratton designated replacement engine. Refer to the Operation & Maintenance Instructions for engine identification information.

  Note: For all Go-karts use only a model 136200 series engine, which offers improved safety and performance.
- Do not use Briggs & Stratton engines on 3-wheel All-Terrain Vehicles (ATVs), motor bikes, air craft products, or vehicles intended for use in competitive events. Briggs & Stratton does not approve of or authorize such uses.

ENGINE INSTALLATION

[1] Do not attempt to install this engine if you do not have the appropriate tools and knowledge of small engine installation procedures. Use only Briggs & Stratton parts. Contact your Authorized Service Dealer for assistance.

[2] Do not modify the engine in any way without Briggs & Stratton factory approval. Any such modification is at the owner's sole risk.

[3] If the exhaust system on the old engine was supplied by the equipment manufacturer, you must transfer the exhaust system and related components (original muffler and related pipes, brackets, clamps, and shields) to the new engine. All components must be in good condition.

[4] **WARNING**

Install muffler (and muffler deflector if used) so outlet points away from operator, fuel tank, and equipment, and so muffler heat will not damage or deform engine and components.

[5] **WARNING**

Ensure all fuel lines and fittings are properly assembled and do not leak. Replacement parts must be the same model as the original.

[6] **WARNING**

Ensure all wiring, including safety switches and engine shut-off components are completely installed and functioning properly.

[7] Set engine speed to equipment manufacturer's specification. Refer to equipment manufacturer's manual. Do not tamper with governor springs, or other parts that will increase engine speed above specification.

[8] **WARNING**

All engine parts, including fuel cap, spark plug, muffler, air cleaner, and covers and guards for drive components (gears, belts, shafts, couplings, etc.) must be in place before attempting to start engine.

[9] **WARNING**

If engine is installed on walk behind lawn mower, all mower components, including cutting blade, must be correctly installed before attempting to start engine.

[10] **WARNING**

When working on the engine or equipment, remove spark plug wire from spark plug. For electric start, remove negative wire from battery.

[11] **WARNING**

Do not check for spark with spark plug removed. Use Briggs & Stratton spark tester #19368.

ENGINE OPERATION

WARNING

When adding fuel:

Turn engine off and let engine cool at least 2 minutes before removing gas cap.

Fill fuel tank outdoors or in well-ventilated area. Fill tank to about 1 inch below lowest portion of neck to allow for fuel expansion.

Keep gasoline away from sparks, open flames, pilot lights, heat, and other ignition sources.

WARNING

When starting engine:

Remove all external equipment/engine loads.

Wait until spilled fuel is evaporated. Start engine outdoors.

Pull cord slowly until resistance is felt, then pull rapidly.

If engine floods, set choke to OPEN/RUN, place throttle in FAST and crank until engine starts.

WARNING

When operating equipment:

Do not tip engine or equipment at angle which causes gasoline to spill.

Run engine outdoors. Do not run in enclosed area, even if doors or windows are open.

Do not choke carburetor to stop engine.